





Full Legalization of Marijuana?

An Informative Guide to Its Impact and Implications





How Could Legalization of Marijuana Impact You?

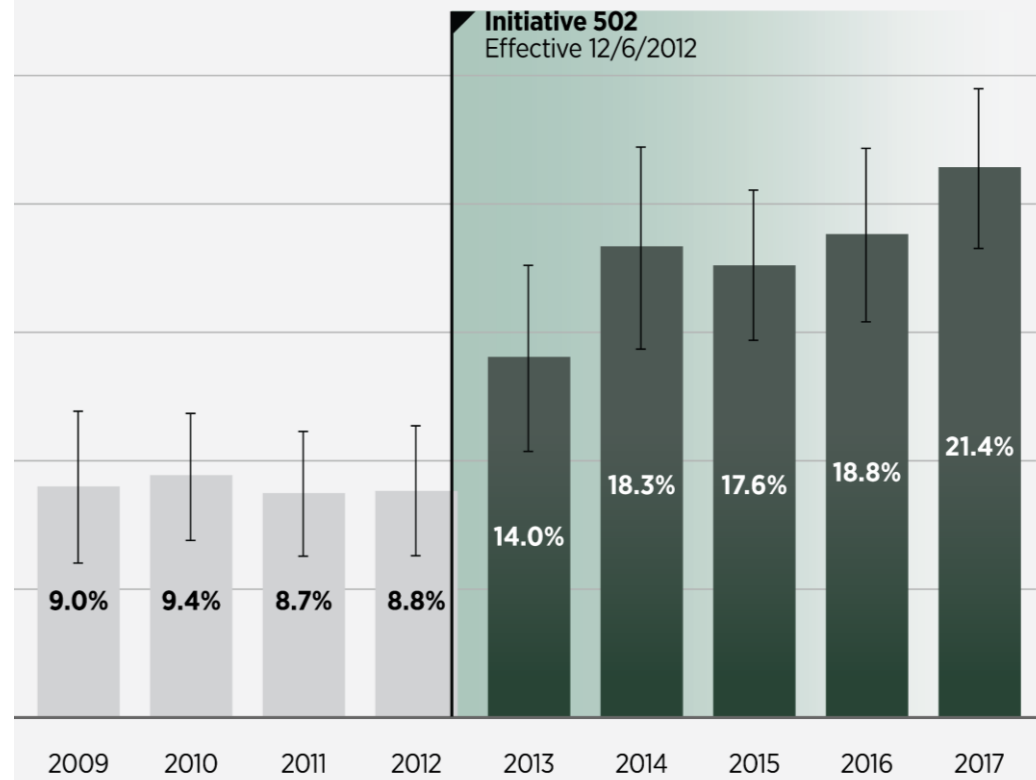


- Road and Crime Safety
- Adolescent Implications
- Education
- Behavioral Health
- Health
 - Head to Toe
 - Pregnancy and Early Life
 - 50 & Beyond
- Marijuana and Addiction
- Impacts to Businesses

Road and Traffic Safety

- Marijuana is the most frequently detected drug (other than alcohol) in crash-involved drivers.¹
- Evidence has shown that marijuana impairs almost every aspect of performance associated with safe driving. Recent epidemiologic studies have found that marijuana use may double the risk of car crash involvement.²

Percentage of Drivers in Fatal Crashes in Washington State Who Were Positive for Marijuana

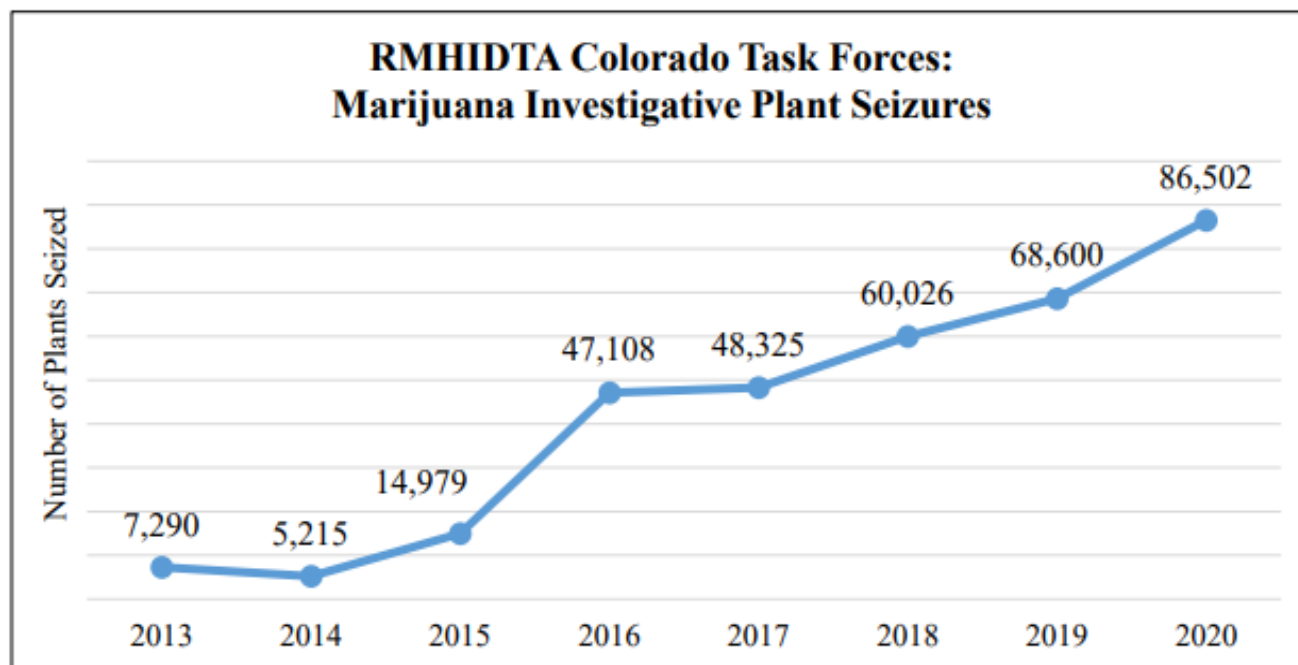


Other Safety Concerns

- Legalized recreational marijuana use was associated with a 6.6% increase in injury crash rates and a 2.3% increase in fatal crash rates.¹
- About one-quarter of fatally injured drivers test positive for marijuana.²
- Currently, there are no evidence-based methods to detect marijuana-impaired driving.³



Increased Crime



SOURCE: Rocky Mountain HIDTA Performance Management Process (PMP) Data

- Seizures of marijuana reported to the El Paso Intelligence Center (EPIC) in Colorado increased 48% from an average of 174 parcels (2009-2012) when marijuana was commercialized to an average of 257 parcels (2013-2020) during the time recreational marijuana became legalized.¹
- Legalization has led to greater black-market activity than ever before.²



Adolescence

- Those who begin using marijuana before age 18 are up to seven times more likely than adults to develop a cannabis use disorder, and there are no medications currently available to treat marijuana use disorder.¹
- A study conducted in part by researchers at Duke University showed that people who started smoking marijuana heavily in their teens and had an ongoing cannabis use disorder lost an average of 8 IQ points between ages 13 and 38. The lost mental abilities didn't fully return in those who quit using marijuana as adults.²
- Research suggests that between 9 and 30 percent of those who use marijuana may develop some degree of cannabis use disorder.³



Other Impacts to Adolescents

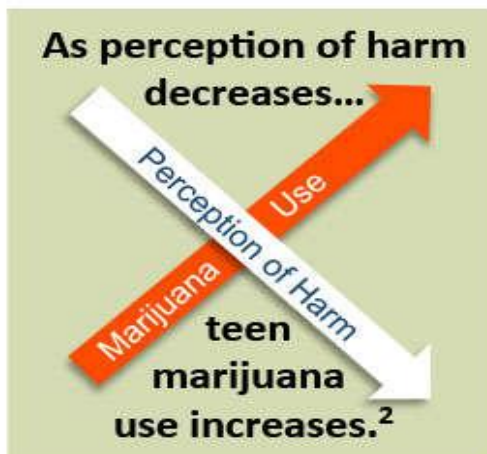
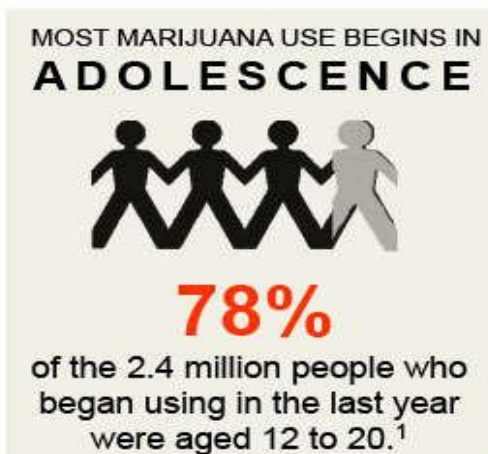
- Marijuana use among young adults (aged 18-28) has reached an all-time high according to 2020 data from the largest, most comprehensive drug use survey of students in the United States – the Monitoring the Future Survey.¹
- Some 699,000 youth aged 12-17 reported an cannabis use disorder in 2019 – representing 187,000 new youth with a cannabis use disorder in 2019 versus 2018. Overall, more than 4.8 million people aged 12 or older reported a cannabis use disorder in 2019, up from 4.4 million in 2018.²
- Teenage marijuana users (aged 12-17) have double the prevalence of a use disorder (addiction) than those of nicotine, alcohol, and, in most categories of users, even prescription drug misusers. The rate was as high as 20% among those who had used more than three years and double the rate of alcohol in all categories.³





MARIJUANA USE & EDUCATIONAL OUTCOMES

Studies show that marijuana interferes with attention, motivation, memory, and learning. Students who use marijuana regularly tend to get lower grades and are more likely to drop out of high school than those who don't use. Those who use it regularly may be functioning at a reduced intellectual level most or all of the time.



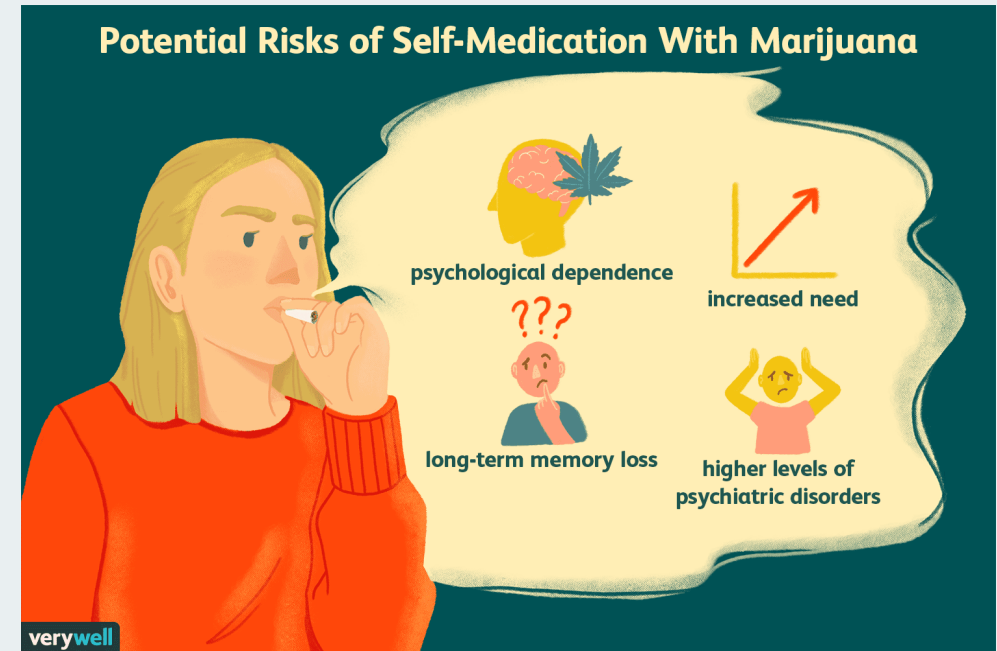
Educational concerns

- A review of 48 relevant studies found marijuana use to be associated with reduced educational attainment (i.e., reduced chances of graduating).
- A recent analysis using data from a study done in part by Duke University found that adolescents who used marijuana regularly were significantly less likely than their non-using peers to finish high school or obtain a degree.
- A study that used Monitoring the Future data showed that eighth-grade students from schools located close to medical marijuana dispensaries (short traveling distance, <5 miles) were more likely to have recently used marijuana compared with those from schools located farther from dispensaries (>25 miles).



Behavioral Health Concerns

- Studies have found that the frequency of marijuana use was significantly associated with the use of other illicit drugs, such as cocaine and heroin, and this association was found to be particularly strong in adolescents.¹
- Data from the CDC's Youth Risk Behavior Surveillance System annual survey finds that lifetime marijuana use is the number one risk factor for prescription opioid misuse.²
- Marijuana intoxication may cause acute psychosis.³ This effect may depend on the potency and amount that is ingested. Maximum blood concentration after consuming marijuana edibles occurs in ~2 hours.⁴



MEMORY PROBLEMS

THC changes the way a part of your brain called the hippocampus processes information, so it can affect your ability to form new memories.

SLOWED REACTION TIME

Cannabis may alter your balance, coordination, and reflex response. This could affect things such as your ability to drive.

IMPAIRED JUDGMENT

THC alters the way you process information, so your judgment may be impaired.

WEAKENED IMMUNE SYSTEM

THC may suppress your immune system, making you potentially more vulnerable to infection.

RESPIRATORY EFFECTS

Cannabis smoke contains a mixture of chemicals that can irritate your lungs and bronchial passages, similar to tobacco smoke. You may experience a burning mouth or throat, a phlegmy cough, or an increased risk of bronchitis.

EFFECTS ON CIRCULATION

Smoking cannabis causes an almost immediate jump in your heart rate and expansion of your blood vessels that may result in a redness of the eyes.

EFFECTS DURING PREGNANCY

Using cannabis during pregnancy can also affect the developing baby. The child may have trouble with memory, concentration, and problem-solving skills.

Head to Toe

- Most of marijuana's effects are short-term. Some, however, are long-term while others can even be permanent. Known effects include:¹

Physical: digestive issues, dry mouth and eyes, increased phlegm, rapid heartbeat, red eyes, stinging or burning in mouth or throat, and lung irritation

Mental: altered sense of time, delusions, hallucinations, memory problems, mood changes, psychosis, slowed reaction time, trouble thinking or problem solving

Systemic: affected brain development in teens, affected fetal development, affected tumor growth, breathing problems, increased risk for heart attack, weakened immune system, worsening of respiratory issues



Pregnancy and Early Life Effects



- Children exposed to marijuana in the womb have an increased risk of problems with attention, memory, and problem-solving compared to unexposed children.¹
- Evidence that suggests that exposure to THC through breastmilk during the baby's first month of life can lead to decreased motor development later.²
- Men who smoke pot as little as once a week doubled the couple's risk of miscarriage according to new research out of the Boston University School of Public Health.³ The study controlled for other risk factors. Not only did marijuana use increase the couple's risk of miscarriage, but men who also smoked marijuana had:
 - Lower sperm count
 - Sperm that behaved abnormally
 - Sperm with reduced active movement



The effects of Marijuana on Pregnancy

In the U.S.,



of pregnant women report using cannabis in the last month.



During pregnancy, up to 30% of THC (marijuana's active ingredient) can reach the baby.



Research shows that a child exposed to THC in the womb or through breast milk is more likely to:



Show gaps in problem-solving and memory at school.



Show more irritability and trembling as an infant.



Have decreased motor development at 12 months.



Develop hyperactivity and inattention symptoms.

Health at 50 & Above

- There are an estimated 5.7 million older Americans with substance use disorder (SUD).¹
- Marijuana in older adults – or any age for that matter – is linked to several health concerns including:²
 - **Chronic respiratory conditions**
 - **Memory issues**
 - **Altered judgment and motor skills**
 - **Depression**
 - **Adverse cardiovascular functions**



Marijuana and Addiction

- The THC (tetrahydrocannabinol) concentration (psychoactive ingredient, what gets a person “high”) commonly cultivated in marijuana plants has risen from 4% in 1995 to 12% in 2014. Some samples of extracts have an 80% to 90% THC level.¹
- Higher THC levels may result in a greater risk for addiction with regular exposure to high doses.²
- Marijuana addiction rates among lifetime users was 10.7% among those who used less than a year; 14.6% among those who used 1-2 years; 16.8% among those who used 2-3 years; and 20.1% among those who used more than three years.³



Workplace Safety

- According to a study reported by the National Institute on Drug Abuse, employees who tested positive for marijuana had 55% more industrial accidents, 85% more injuries and 75% greater absenteeism compared to those who tested negative.¹
- OSHA law requires an employer to provide “employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to employees.”²
- An increase in the number of marijuana users can translate to greater safety risks for coworkers and decreased productivity, absenteeism, safety and liability risk for employers.



Employment Ramifications

- It is now difficult for employers to find job applicants who can pass a drug test. Colorado construction company GE Johnson was forced to hire out-of-state construction workers because too many Coloradans were failing pre-employment drug tests.¹
- 71% of employers believe employees would feel comfortable telling their supervisor if they were too impaired to work; yet only 42% of employees reported that they would feel comfortable telling supervisors they were impaired.²



Business Liabilities

- Higher-potency marijuana has been demonstrated to consistently impair executive function and motor control for periods in excess of 6 hours after cessation of smoking. It is reasonable to presume that emerging high-potency THC strains will have proportionally greater and more prolonged psychomotor effects.¹
- Unlike with alcohol, we do not yet have a reliable testing method to detect if someone is impaired by marijuana in the workplace. Insurance claims have become a growing concern among companies in legalized states because if marijuana use is allowed or drug testing ignored, employers are at risk of liability claims when a marijuana-related injury or illness occurs onsite.



Call to Action

- What should you do? Use this time to fully understand the impact that full legalization of marijuana would have on Ohio.
 - Review the negatives consequences of full legalization in states like Colorado and Washington.
 - Consider how legalization would impact your ability to carry out business, navigate your community's streets and highways, change the property value of your home and raise health children.
 - Learn more about the negative effects of marijuana on the human body from childhood to retirement.
 - Learn more about marijuana's addictive characteristics.
 - Review NIDA and the CDC's factsheets developed to help people understand the implications of marijuana use.
 - [Marijuana Drug Facts | National Institute on Drug Abuse \(NIDA\) \(nih.gov\)](https://www.nida.nih.gov/publications/marijuana-drug-facts)
 - [Marijuana and Public Health \(cdc.gov\)](https://www.cdc.gov/druguse/marijuana/index.html)



Marijuana Task Force Members



Prevention
Action Alliance

Educate. Empower. Advocate.



**OHIO PREVENTION
PROFESSIONALS ASSOCIATION**

